

CLAIMS

- 1 A borehole tool, comprising: a tool body; a series of arms connected
to the tool body and moveable radially relative thereto; and a series
of pads mounted on the arms so as to be pivotable relative thereto;
5 characterised in that the pads are pivotable about a radial axis
relative to the tool body.
- 2 A tool as claimed in claim 1, comprising elongate pads arranged to
provide different circumferential coverage according to the
orientation with respect to the longitudinal axis of the borehole.
- 10 3 A tool as claimed in claim 1 or 2, the pads are connected to the arms
such that the orientation of the pads relative to the tool body is
determined by the extent of the arms in the radial direction.
- 4 A tool as claimed in claim 1, 2 and 3, wherein the pivoting of pads is
synchronised such that the pads adopt a substantially regular pattern
15 of orientation.
- 5 A tool as claimed in claim 4, wherein adjacent pads are
interconnected so as to synchronise pivoting.
- 6 A tool as claimed in any preceding claim, wherein the pads are
arranged in a ring, each pad being connected at its ends to the
20 adjacent pads.
- 7 A tool as claimed in any preceding claim, wherein the arms are
arranged symmetrically around the tool body.
- 8 A tool as claimed in any preceding claim, wherein each arm is
connected to the tool body at one end by a pivot or hinge that allows
25 the arm to move in a radial plane relative to the tool body.
- 9 A tool as claimed in any preceding claim, wherein the ends of the
arms are be connected to the pads.
- 10 A tool as claimed in any preceding claim, wherein the arms can move
between two limit positions: the first in which the arm lies
30 substantially parallel to the tool body; and the second in which the

arm projects away from the tool body in a radial direction to contact the borehole wall.

11 A tool as claimed in any preceding claim, wherein the series of arms comprises two sets of arms separated along the tool body with the series of pads encircling the body between the sets of arms.

12 A tool as claimed in claim 11, wherein the arms of each set extend from the connection on the tool body towards the other set.

13 A tool as claimed in claim 12, wherein the two sets of arms are arranged on the tool body in an angularly offset configuration.

14 A tool as claimed in claim 13, wherein the pads are connected to the arms in such a way that one end of a pad is connected to an arm from the first set and the other end of the pad is connected to the adjacent arm of the second set.

15 A tool as claimed in any preceding claim, wherein the pads form a zigzag array extending around the circumference of the borehole.

16 A tool as claimed in claim 15, wherein each arm is connected to two pads at adjacent ends.

17 A tool as claimed in any of claims 11-14, wherein the ends of one set of arms are located in a fixed position on the tool body and the ends of the other set are located on the tool body by means of a sliding ring which can be driven along the tool body to cause the arms of both sets to extend or retract.

18 A tool as claimed in claim 17, further comprising a detector for detecting the angle between any arm and the tool axis.

19 A tool as claimed in claim 17 or 18, wherein the location of the arms on the ring is provided so as to allow axial movement of the ends of the arms relative to the tool body.

20 A tool as claimed in claim 19, further comprising a detector for detecting the axial position of the ring and the location point of each arm.

- 21 The use of a tool as claimed in any of claims 18, 19 or 20 to determine the size of a borehole in which it is positioned.
- 22 The use of a tool as claimed in claim 19 or 20 to determine the shape of a hole in which it is positioned.